

AID Masterlot for Elispot Systems

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AID's intention to create a masterlot plate was based on deviations of light conditions which led to different count results, especially in times when neon ring illuminators were in use.

To verify constant light conditions it is recommended to read an AID Masterlot plate frequently and compare results with formerly saved readings. The AID Masterlot plate should always be read with same camera settings and count settings (visible in plate history); most important for comparison of light conditions are values for well saturation, visible in well preview. If well saturations in certain wells differ more than 5% in a recently read plate then value for exposure/shutter in camera settings dialog should be adjusted so that similar values for well saturations are obtained.

How to do that :

- care for ~ 30 minutes warm-up-time for lamp and camera sensor
- Log in as user "Masterlot"
- read and count AID Masterlot plate and save result
- press "QC"button in toolbar and "Check System" in next window
- compare well saturations with parameters saved in QC settings (menu > tools > QC settings)
- if values for well saturation differ more than 5% then go to Camera > Change Camera Settings and adjust shutter/exposure values in that manner that after reading the AID Masterlot plate once more values for well saturations are in range

Differences bigger than 5% can lead to differences in count results of about 5%!

Most important for reproducable count results are constant light conditions which is equivalent to similar well saturations on the AID Masterlot plate !

The AID Masterlot plate can be used for up to 5 years if kept in its protective box .

Masterlot Count Settings for systems with Allied cameras :

Count Settings—for HR	Count Settings—for SR	Count Settings—for IFL	
Name: mlotleft	Name: mlotleft	Name: mlotleft	
Algorithm: C	Algorithm: C	Algorithm: C	
Intensity MIN: 40	Intensity MIN: 26	Intensity MIN: 25	
Gradient MIN:0	Gradient MIN: 1	Gradient MIN: 0	
Size MIN: 15	Size MIN: 26	Size MIN: 22	
Emphasis :Small	Emphasis :Small	Emphasis :Small	columns 1-6
Name: mlotright	Name: mlotright	Name: mlotright	
Algorithm: C	Algorithm: A	Algorithm: C	
Intensity MIN: 50	Intensity MIN: 8	Intensity MIN: 50	
Gradient MIN: 0	Gradient MIN: 0	Gradient MIN: 0	
Size MIN: 25	Size MIN: 8	Size MIN: 22	
Emphasis :Tiny	Emphasis :Tiny	Emphasis :Tiny	columns 7-12

Expected count results on the AID Masterlot plate:

Columns 1-6: 24 spots, well saturation $\sim 33 + 3\%$

Columns 7-11: 1032 spots +/- 5% (relative with focus position) , well saturation \sim 39 +/- 3%

Camera settings : AID Default settings (can be reloaded in camera settings dialog or through toolbar)